Abstract of the Disclosure

A fuel injector seat for a fuel injector assembly, and more particularly for a high-pressure fuel injector assembly, having a number of features for minimizing the formation of combustion chamber deposits on the seat, providing a selected finish on a needle-sealing portion, and reducing sac volume. These features include positioning a transition portion between the needle-sealing portion and an orifice portion, positioning a sharp edge at the outlet of the orifice portion, and applying a coating to certain surfaces of the seat. This invention also relates to a fuel injector seat and method of manufacturing the fuel injector seat, and a method of evaluating when the transition portion is required between the orifice and needle-sealing portions for a particular seat arrangement.